



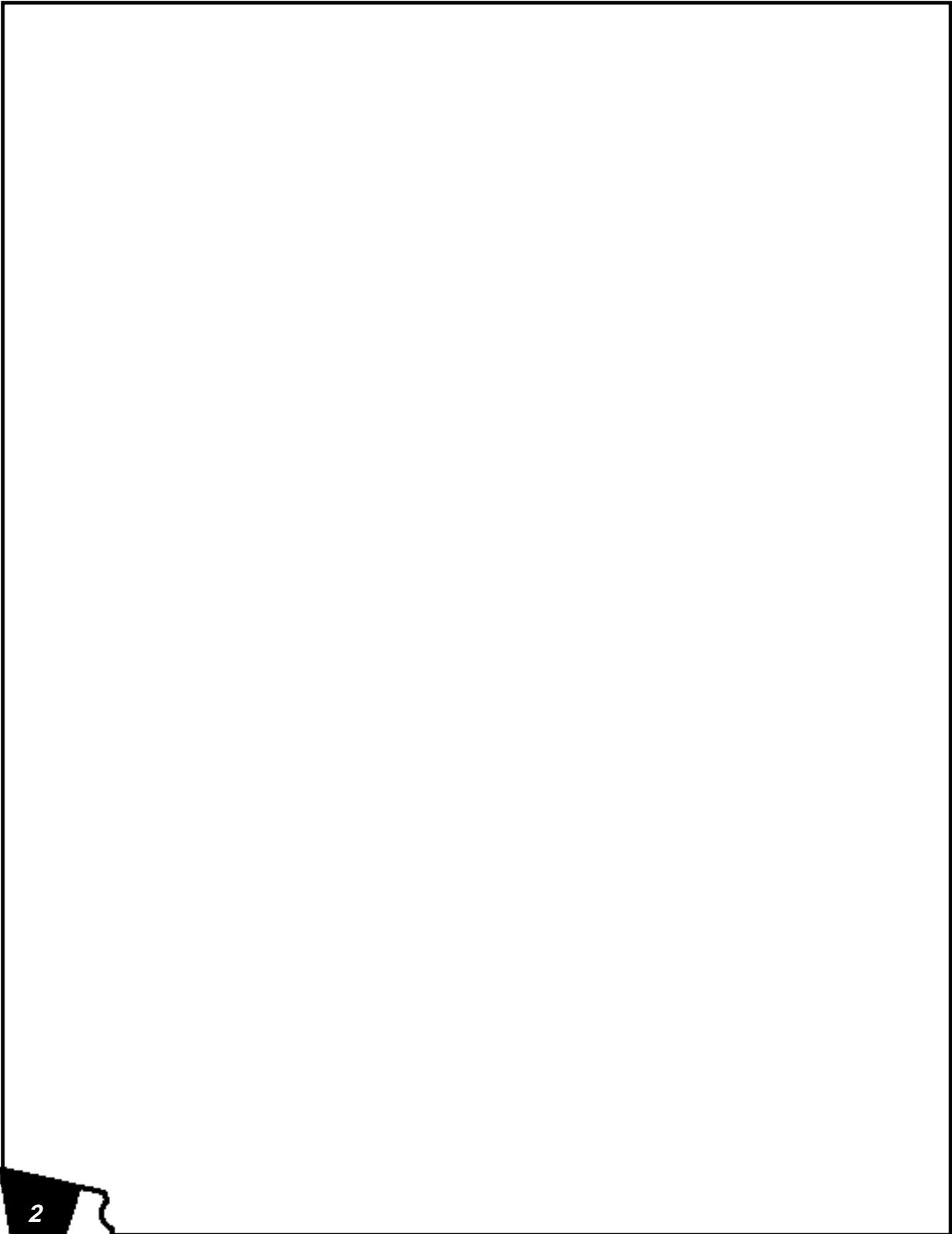
DISCOVERING
HISTORIC IOWA
TRANSPORTATION MILESTONES
AND MAP READING ACTIVITIES

PROVIDED BY



Blackline Master

March 2000





Iowa Department of Transportation

800 Lincoln Way, Ames, IA 50010

515-239-1922

FAX: 515-817-6508

March 2000

Dear Area Education Agency Representative or
Classroom Instructor:

In celebration of the Iowa Department of Transportation's (DOT) Iowa transportation map, the enclosed materials were developed for classroom use and are being made available at no charge to you for distribution within your region.

We have used the Iowa transportation map, which is one of Iowa's most popular publications, the *Discovering historic Iowa transportation milestones* booklet, and *A Township Map of the State of Iowa, 1851* to develop the enclosed worksheets, crossword puzzle and word find activities.

If you would like to order additional copies of the Iowa transportation map, contact the Iowa Tourism Office at 1-800-345-IOWA. Iowa transportation maps can also be obtained by calling the Iowa DOT at 515-239-1372, or ordered via the Internet at: www.dot.state.ia.us

Sincerely,

Dena M. Gray-Fisher, Director
Media and Marketing Services
Director's Staff Division

jam

Enclosures



TABLE OF CONTENTS

Introduction:	What can your students learn from the enclosed materials? -----	5
	Index of Materials Used With This Booklet -----	5
Worksheet 1:	Map Reading Basics Using the <i>Iowa Transportation Map</i> -----	7
Worksheet 2:	<i>Iowa Transportation Map</i> Reading -----	9
Worksheet 3:	<i>A Township Map of the State of Iowa, 1851</i> Compare it to the <i>Iowa Transportation Map</i> -----	11
Worksheet 4:	Comparing Maps -----	13
Worksheet 5:	Finding Historical Data Using <i>A Township Map of the State of Iowa, 1851</i> -----	15
Worksheet 6:	Iowa's Early Transportation System -----	17
Worksheet 7:	Finding Public Land Using <i>A Township Map of the State of Iowa, 1851</i> -----	19
Worksheet 8:	<i>A Township Map of the State of Iowa, 1851</i> -----	21
Worksheet 9:	Iowa History <i>Discovering historic Iowa transportation milestones</i> (True-False) -----	23
Worksheet 10:	Iowa History <i>Discovering historic Iowa transportation milestones</i> (Multiple Choice) -----	25
Worksheet 11:	<i>Discovering historic Iowa transportation milestones</i> Crossword Puzzle -----	31
Worksheet 12:	Word Find #1 -----	33
Worksheet 13:	Word Find #2 -----	35
Answer Keys	-----	37



WHAT CAN YOUR STUDENTS LEARN FROM THE ENCLOSED MATERIALS?

A road map will show you how you can travel from one place to another. The map will show you the borders of Iowa, such as the Mississippi and Missouri rivers, surrounding states, camping sites, lakes, etc.

Students will:

- compare the modern day transportation map to a map that was created in 1851;
- look at the two maps and see that boundaries have changed, lakes have been created by manmade dams, and other information for the traveling public has changed;
- learn to locate towns, points of interest, state parks, etc., on the map;
- use the index and legend on the map and other transportation facts; and
- complete worksheets based on the history of transportation within Iowa.

INDEX OF MATERIALS USED WITH THESE LESSONS:

Maps *Iowa Transportation Map*

A Township Map of the State of Iowa, 1851

(Reprinted by permission of the Price Laboratory School at the University of Northern Iowa.)

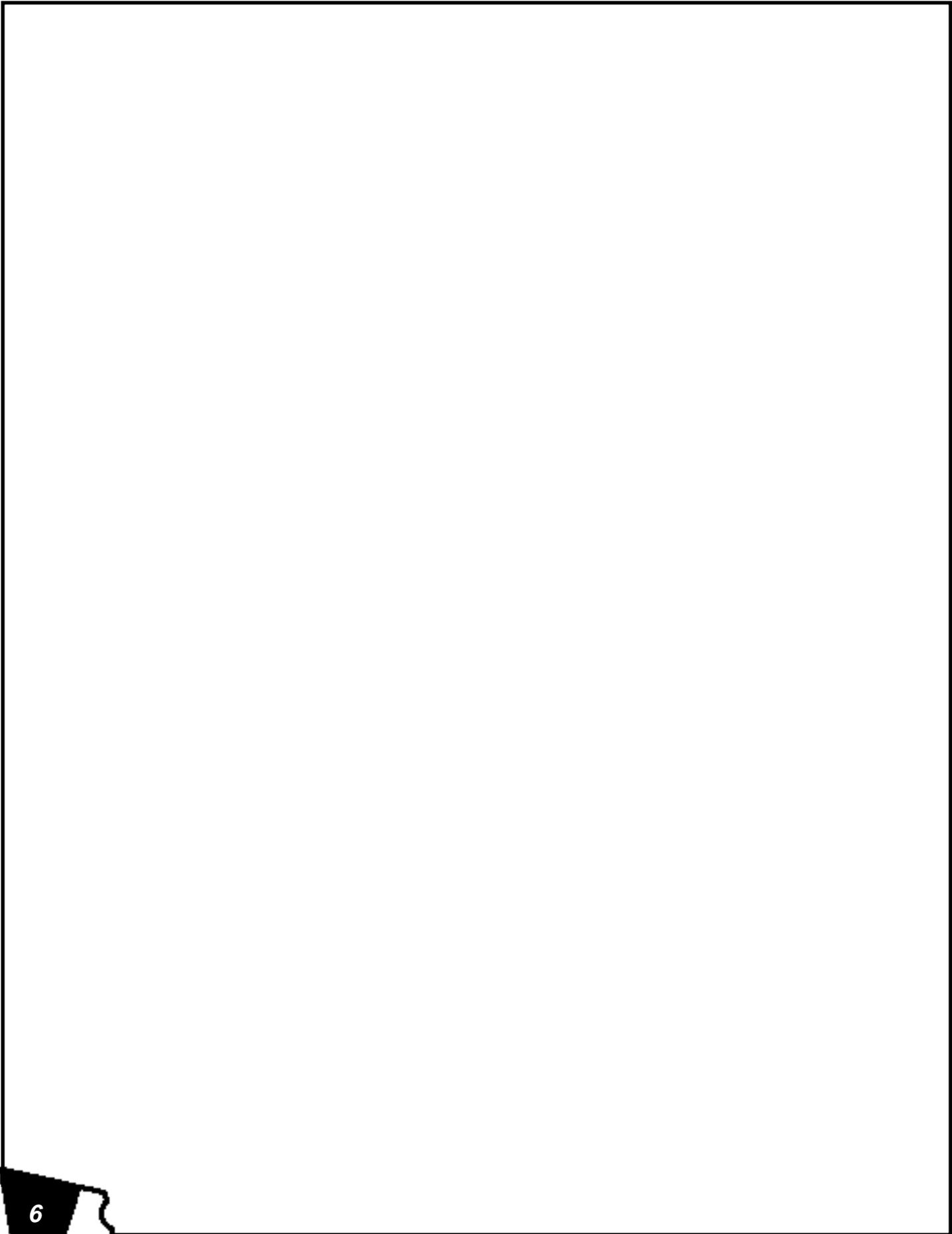
Booklet *Discovering historic Iowa transportation milestones*

Video *A History of Iowa's Rivers, Roads, Rails & Runways*

(Time: 21:05 minutes)

(Copies of the video are available from your Area Education Association library.)





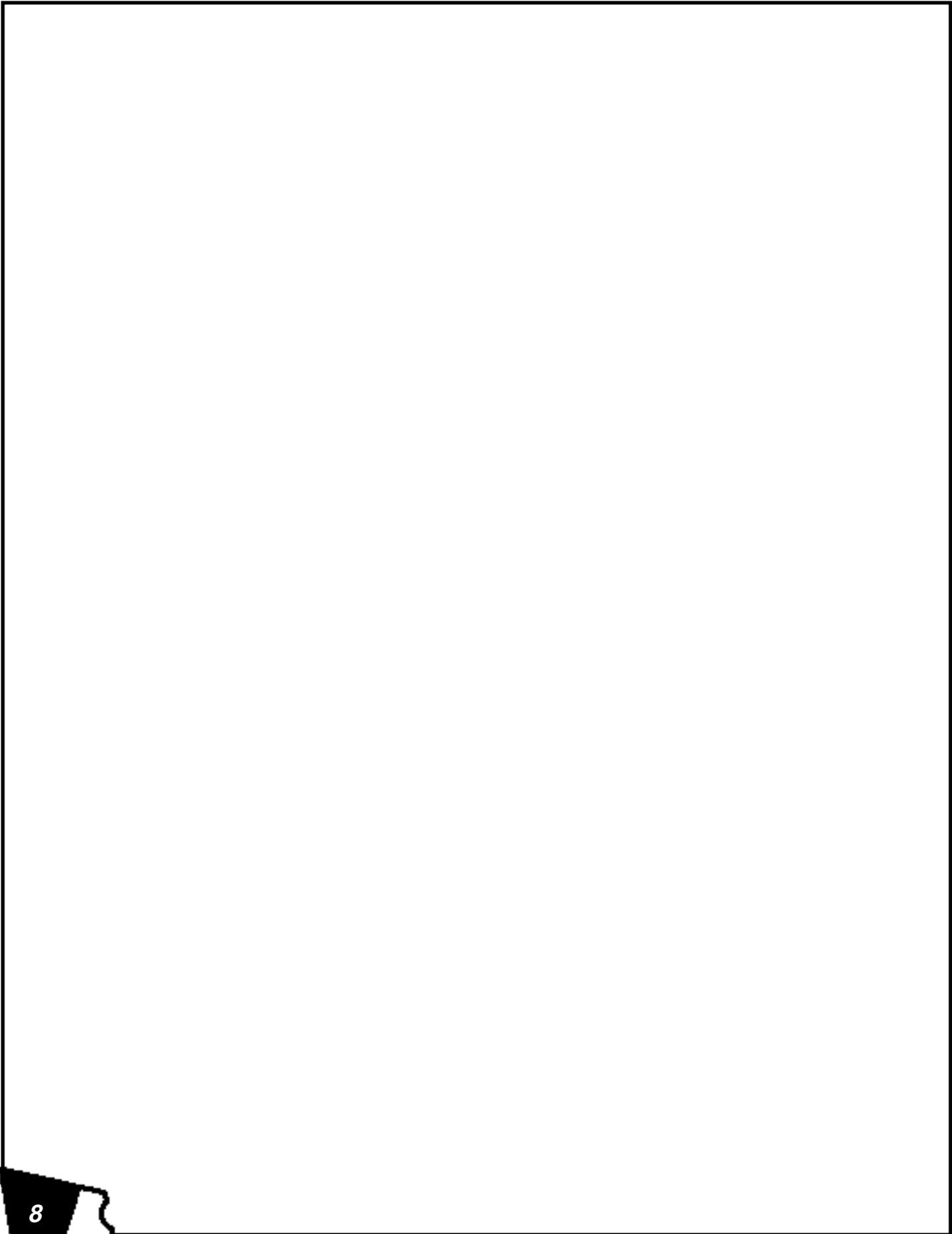
MAP READING BASICS

USING THE *IOWA TRANSPORTATION MAP*

Directions: Answer the following questions using the Iowa Transportation Map, including the legend, the key to map symbols, the listing of cities and villages in Iowa, and the county index.

1. One _____ on the map equals approximately 12 miles.
2. The legend includes information on access _____ and route _____.
3. Describe each of the five "picture" symbols listed in the legend under "Air, Rail and Water."
A. _____ D. _____
B. _____ E. _____
C. _____
4. The black, rectangular interstate _____ markers at interchanges on interstate routes on the map help motorists determine the distance to the next interchange.
5. Describe the symbol for:
A. State Hatcheries _____
B. Welcome/Information Centers _____
C. County Seats _____
D. Hospitals _____
6. On the map, cities and villages are marked with symbols indicating their "population category." What are the six population categories?
A. 50,000 and Over D. _____
B. _____ E. _____
C. _____ F. Unincorporated
7. A pink dot is the symbol for a _____ of _____.
8. What is the population of Wahpeton? _____
9. What services are shown for Burlington?
A. _____ C. _____
B. _____ D. _____
10. How many counties are there in Iowa? _____





IOWA TRANSPORTATION MAP

MAP READING

1. List the location of six of Iowa's Interstate Welcome Centers:

A. _____

B. _____

C. _____

D. _____

E. _____

F. _____

2. List four state parks with camping facilities:

A. _____

B. _____

C. _____

D. _____

3. List four state institutions:

A. _____

B. _____

C. _____

D. _____

4. What state parks are near the following communities:

A. Indianola _____

B. Paullina _____

C. Maquoketa _____

D. Fayette _____



5. What is the population of:

- A. Brunsville _____
- B. Knoxville _____
- C. Des Moines _____
- D. Rockford _____
- E. Fort Madison _____
- F. Cedar Rapids _____

6. Name the point of interest located in or near each of the following communities:

- A. Adair _____
- B. Le Mars _____
- C. West Bend _____
- D. Littleport _____
- E. Toolesboro _____
- F. Orient _____
- G. Agency _____
- H. Clarion _____

7. What county seat is located at H-7? _____

8. What lakes are located at D-5? _____

9. Name two large, man-made lakes found on the Des Moines River.

- A. _____
- B. _____

10. What river runs through Red Oak?

11. What town is located at the intersection of U. S. 30 and U. S. 59 highways?

12. Osceola is found at the following coordinates: _____



Worksheet #3

A TOWNSHIP MAP OF THE STATE OF IOWA, 1851
COMPARE IT TO THE IOWA TRANSPORTATION MAP

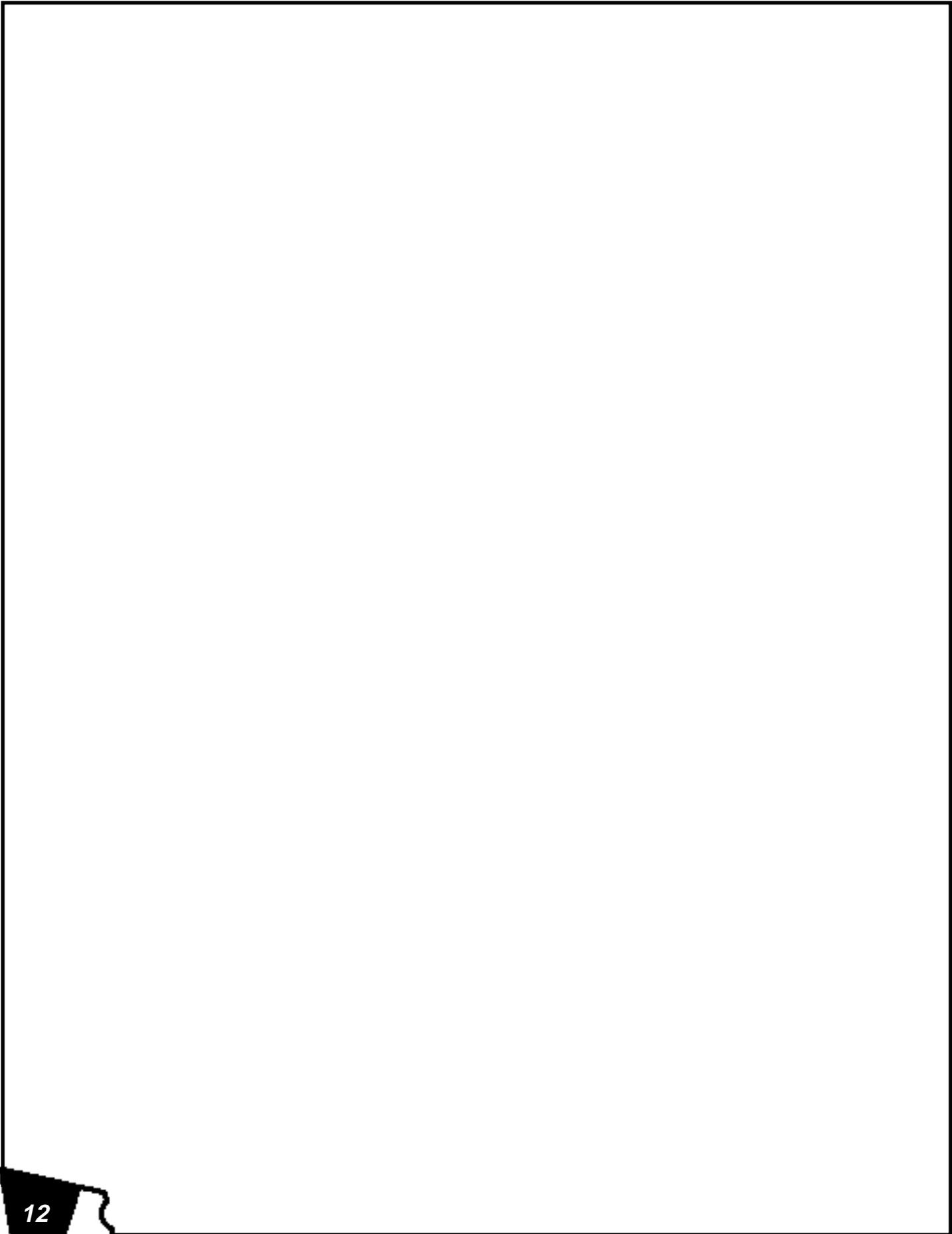
published by J. F. Abrahams

Directions: In this activity you are asked to compare the information shown on the 1851 map with a current transportation (highway) map of Iowa.

Place an "X" in the appropriate column if the item appears on the map. If you find the item in both maps, place an "X" in both columns.

ITEM	1851 TOWNSHIP MAP OF IOWA	CURRENT HIGHWAY MAP
1. Title of Map		
2. Publisher of the Map		
3. Place of Publication		
4. Date of Map		
5. Latitude and Longitude Coordinates		
6. Mileage Scale		
7. Names of Counties		
8. Township Divisions		
9. Names of Cities and Towns		
10. Names of Rivers and Lakes		
11. Names of Surrounding States/Territories		
12. Populations of Counties		
13. Populations of Cities and Towns		
14. Roads		
15. Railroads		
16. Canals		
17. Location Index for Cities and Towns		
18. Letter and Number Coordinates		
19. Advertisements		





Worksheet #4

COMPARING MAPS

Directions: In this activity you are asked to answer the following questions using the information on both A *Township Map of the State of Iowa, 1851* and the *Iowa Transportation Map*.

Counties

- Which 1851 Iowa county was added to another Iowa county? _____
- List the six 1851 counties with names different from today's counties.
A. _____ D. _____
B. _____ E. _____
C. _____ F. _____
- Which three 1851 counties had different spellings than they have today?
A. _____ C. _____
B. _____
- Which were the five most populous counties in 1851?
A. _____ D. _____
B. _____ E. _____
C. _____

Rivers and Lakes

- Name two of the four Iowa lakes that have different names today than in 1851?
A. _____ B. _____
- Name one of the two Iowa counties that had lakes in 1851, but have none today?

- Name four present-day, man-made Iowa lakes were not shown on the 1851 map?
A. _____ C. _____
B. _____ D. _____
- How many Des Moines River dams were indicated on the 1851 map? _____



Cities and Towns

1. Name two of the five Iowa cities or towns shown on the 1851 map that no longer exist.
A. _____ B. _____
2. What were the five most populous cities in Iowa in 1851?
A. _____ D. _____
B. _____ E. _____
C. _____
3. What are the five most populous cities in Iowa today?
A. _____ D. _____
B. _____ E. _____
C. _____
4. List four Iowa county seat cities or towns today.
A. _____ C. _____
B. _____ D. _____
5. List five 1851 cities or towns that no longer serve as county seats.
A. _____ C. _____
B. _____ D. _____



Worksheet #5

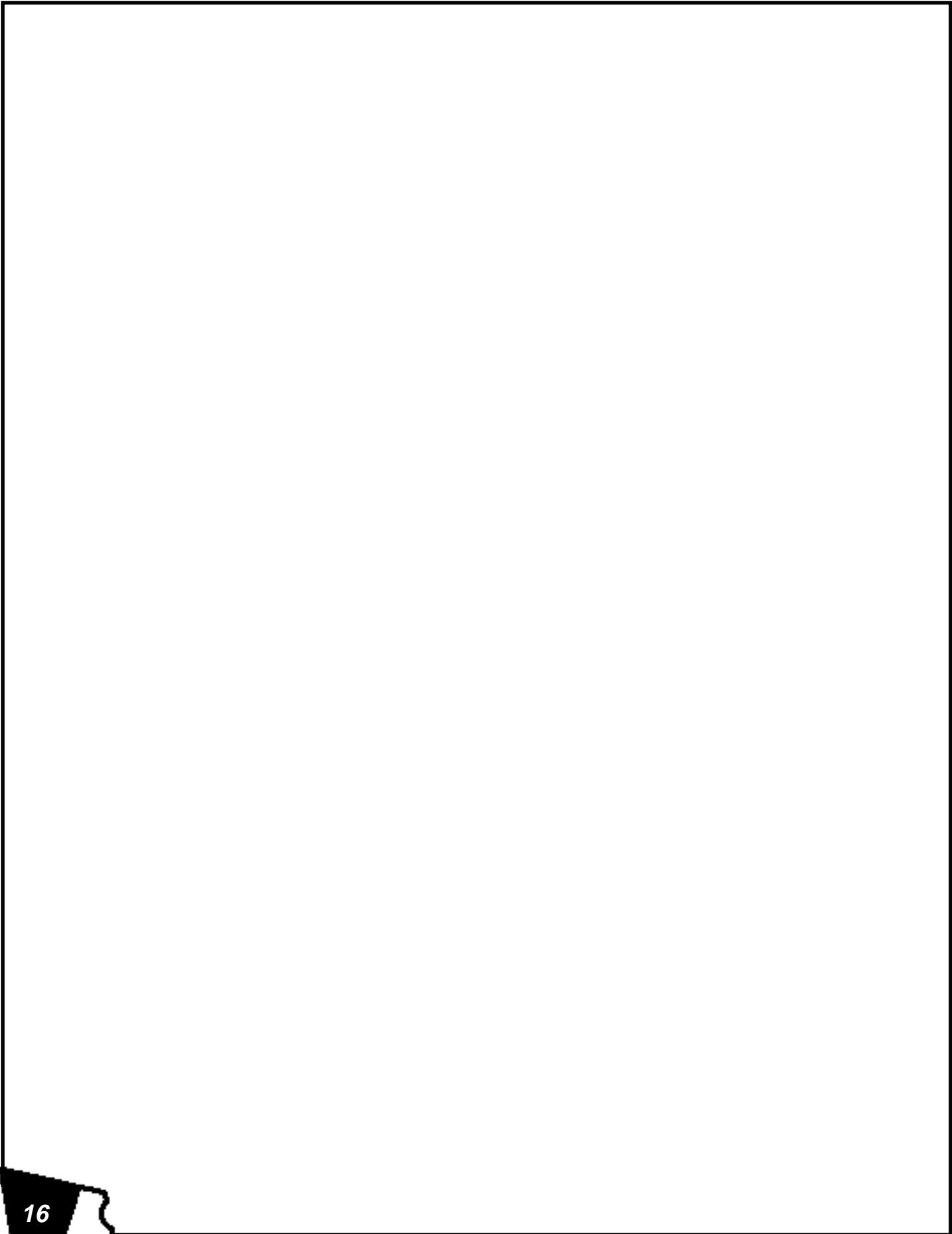
FINDING HISTORICAL DATA USING A TOWNSHIP MAP OF THE STATE OF IOWA, 1851

Directions: In this activity you are asked to determine if the following questions could be answered with the information available on the back of the 1851 map. You do not need to answer the questions. Place an "X" in the "yes" column, if the information is available. Place an "X" in the "no" column, if the information is not available.

YES NO

- | | | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | 1. What was the distance between St. Louis, Missouri, and Dubuque, Iowa, by Mississippi River steamboat? |
| <input type="checkbox"/> | <input type="checkbox"/> | 2. What was the distance between Davenport and Council Bluffs by railroad? |
| <input type="checkbox"/> | <input type="checkbox"/> | 3. How long did it take to travel between St. Louis, Missouri, and Davenport, Iowa, by steamboat? |
| <input type="checkbox"/> | <input type="checkbox"/> | 4. When did the Sioux Indian Land Cession of Northern Iowa take place? |
| <input type="checkbox"/> | <input type="checkbox"/> | 5. What was the average speed of trains in the early 1850s? |
| <input type="checkbox"/> | <input type="checkbox"/> | 6. What was the minimum price of government land sold at public auction? |
| <input type="checkbox"/> | <input type="checkbox"/> | 7. What was the name of a Davenport, Iowa, real estate firm? |
| <input type="checkbox"/> | <input type="checkbox"/> | 8. How long did it take to travel between Iowa City and St. Francis by oxen team? |
| <input type="checkbox"/> | <input type="checkbox"/> | 9. What mineral resources were found in Iowa? |
| <input type="checkbox"/> | <input type="checkbox"/> | 10. What was the fare to travel by stagecoach between Iowa City and Fort Des Moines? |
| <input type="checkbox"/> | <input type="checkbox"/> | 11. What wild animals were found in early Iowa? |
| <input type="checkbox"/> | <input type="checkbox"/> | 12. What was the value of Russian silver roubles? |
| <input type="checkbox"/> | <input type="checkbox"/> | 13. During how many months of the year was the Upper Mississippi River open for navigation? |
| <input type="checkbox"/> | <input type="checkbox"/> | 14. What was the population of Iowa in 1850? |
| <input type="checkbox"/> | <input type="checkbox"/> | 15. Was there steamboat service on the Des Moines River? |





Worksheet #6

IOWA'S EARLY TRANSPORTATION SYSTEM

Directions: In this activity you are asked to find information about early Iowa's transportation system on the *A Township Map of the State of Iowa, 1851*.

1. Which area of the state (northwest, southwest, central, northeast, southeast) had the most roads in 1851?

2. Which two Iowa cities were linked by a plank road?

A. _____ B. _____

3. Which three towns or settlements were not linked with other towns by roads?

A. _____

B. _____

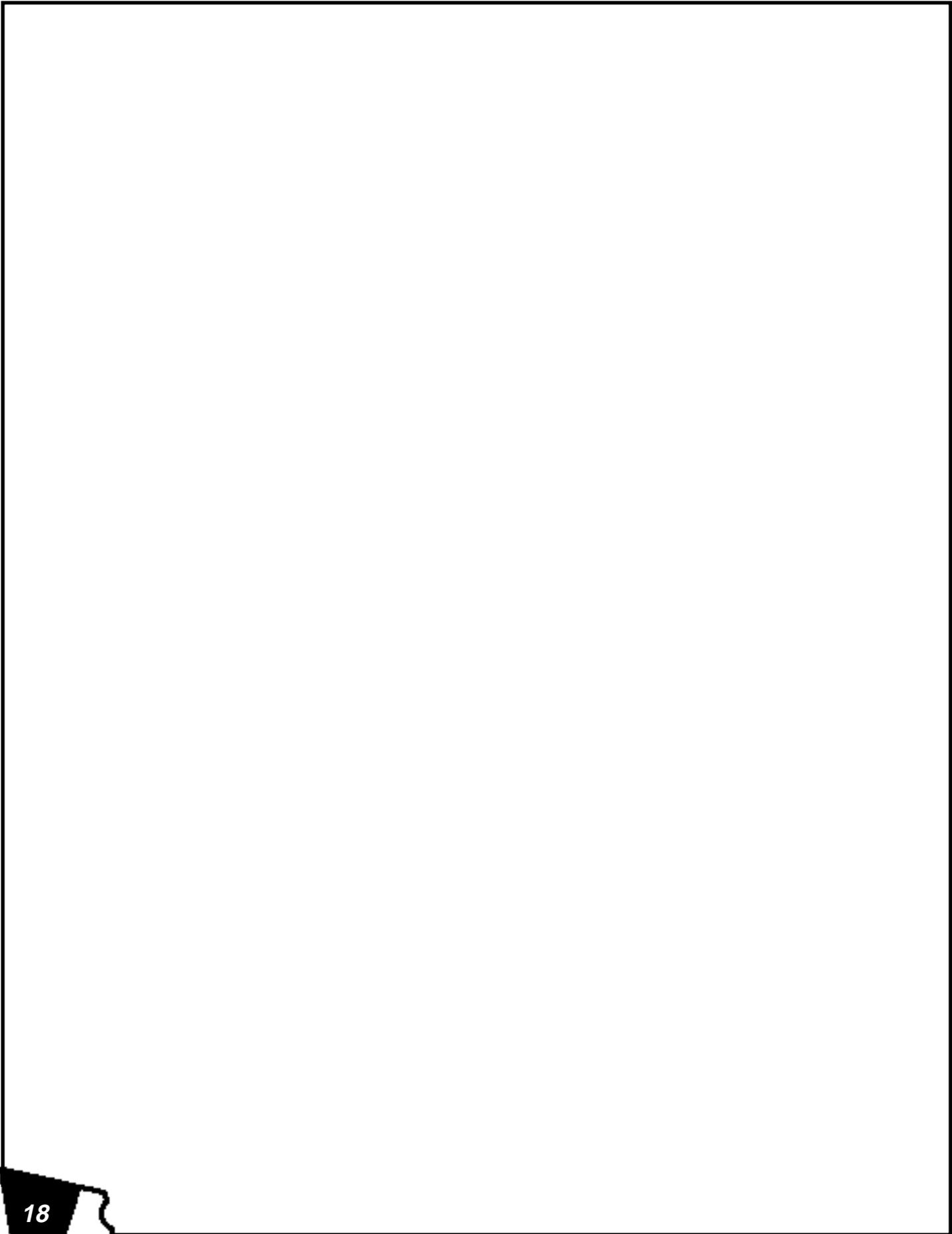
C. _____

4. Who granted Clark, Townsend and Wheeling the charter to operate a ferry across the Missouri River?

5. What was the distance between Davenport to Iowa City according to the table, Distances on the Mississippi and Missouri Railroad?

6. On the 1851 map there is a picture of the state capitol. Name the city the state capitol was located in.





Worksheet #7

FINDING PUBLIC LAND USING *A TOWNSHIP MAP OF THE STATE OF IOWA, 1851*

Directions: Find the county in which these plots of land are located using the land survey system of meridian lines and ranges shown on the face of the map.

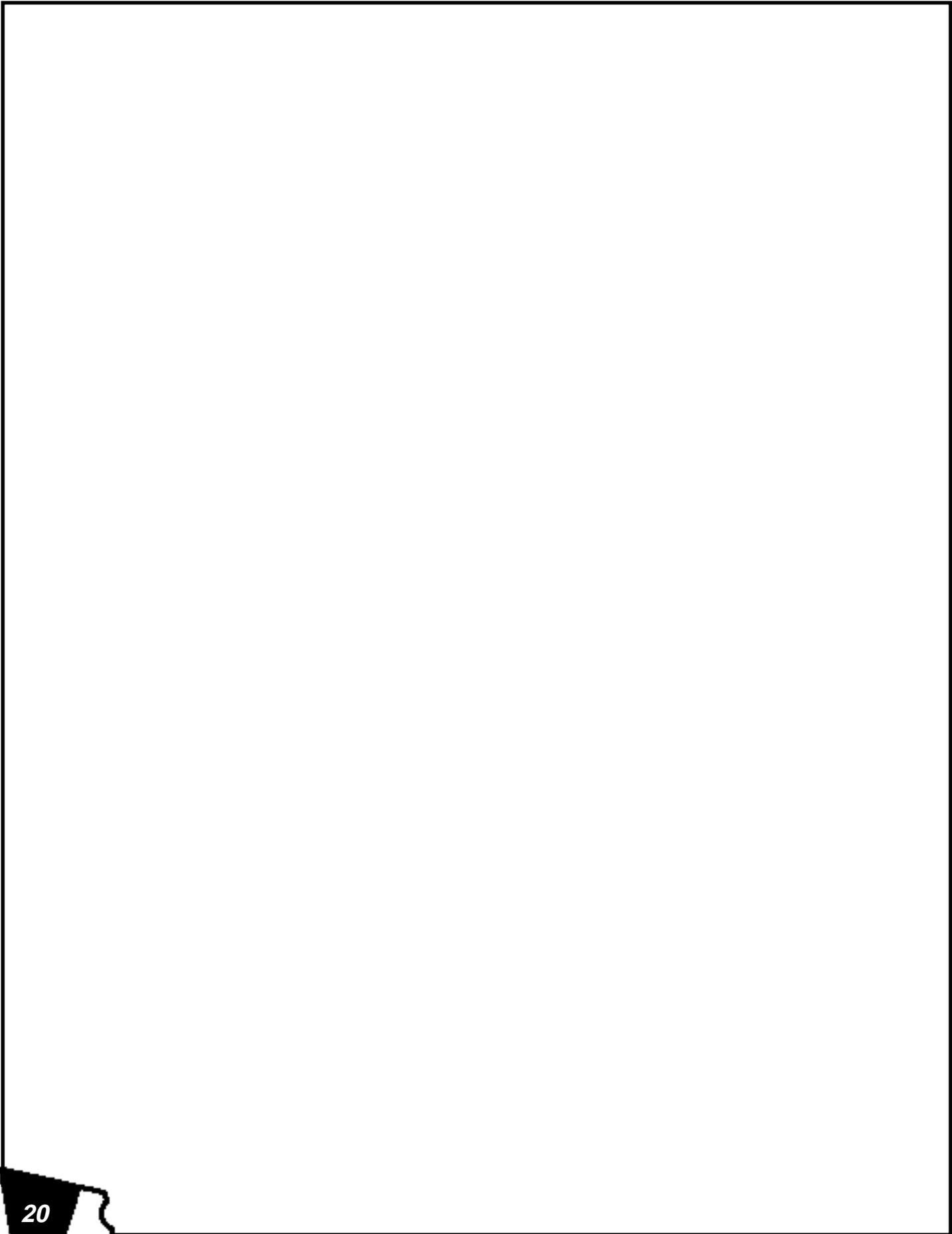
Meridians are numbered north and south from the base line.
Ranges are numbered east or west of the meridian on the base line.

Running north and south on the map are the meridians that are numbered 100 (north) to 65 (southern tip).

Running east and west near the center of the map are the ranges that are numbered 45 (west) to 4 (east).

Description of Land	County
1. Meridian 79, Range 17	_____
2. Meridian 76, Range 5	_____
3. Meridian 83, Range 17	_____
4. Meridian 83, Range 38	_____
5. Meridian 85, Range 15	_____





Worksheet #8

A TOWNSHIP MAP OF THE STATE OF IOWA, 1851

Directions: The following questions may be answered from the information on the back of the *A Township Map of the State of Iowa, 1851*.

1. What forms of transportation are illustrated or described on the map?

A. _____ C. _____

B. _____ D. _____

2. List six wild animals named in the article, "The State of Iowa."

A. _____ D. _____

B. _____ E. _____

C. _____ F. _____

3. List four crops that may be raised by Iowa farmers according to the article, "The State of Iowa."

A. _____ C. _____

B. _____ D. _____

4. What mineral resources were listed by the author of The State of Iowa?

A. _____ C. _____

B. _____

5. What is the distance between St. Louis and Keokuk by river?

6. What is the distance between Keokuk and Dubuque by river?



7. What is the largest Iowa city on the Upper Mississippi?

8. If a steamboat traveled five miles per hour, how long would it take to travel between St. Louis and Davenport?

9. What is the northernmost Iowa port listed on the table, "Distances on the Upper Mississippi River?"

10. Which Iowa city is incorrectly listed as being in Illinois by the table, "Distances on the Upper Mississippi River?"



IOWA HISTORY

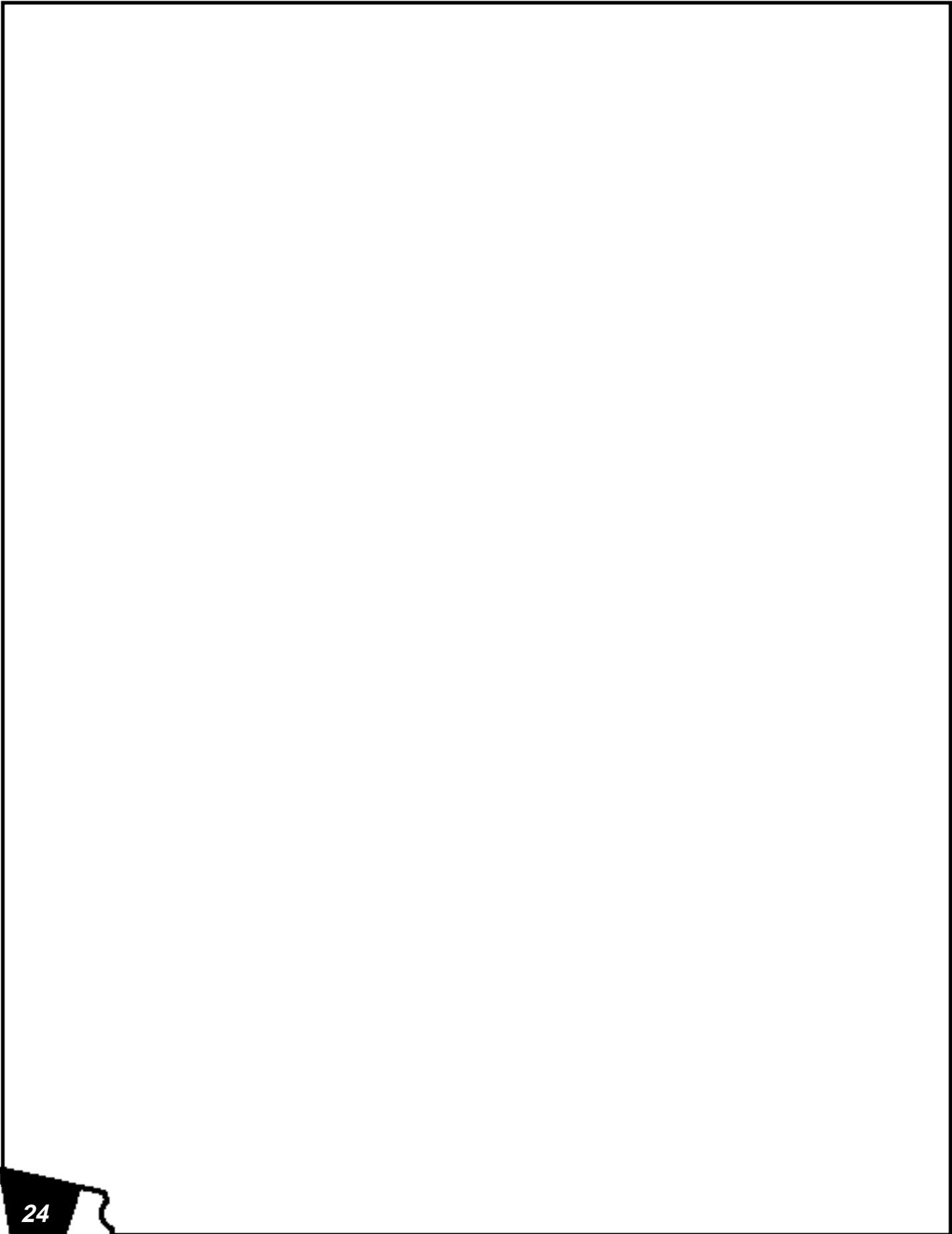
Discovering historic Iowa transportation milestones

True or False Worksheet directions: Place an "X" in the appropriate column.

True False

- | | | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | 1. Prior to the postal laws of 1845, the mail rate on the stagecoach for a folded single sheet delivered more than 400 miles was 25 cents. |
| <input type="checkbox"/> | <input type="checkbox"/> | 2. Iowa had five pony express relay stations within its borders. |
| <input type="checkbox"/> | <input type="checkbox"/> | 3. In 1911 the minimum age for operators of a motor vehicle was 15 years. |
| <input type="checkbox"/> | <input type="checkbox"/> | 4. At one time Iowa's speed limit was defined as "reasonable and proper." |
| <input type="checkbox"/> | <input type="checkbox"/> | 5. Iowa's first official road map was completed in 1955. |
| <input type="checkbox"/> | <input type="checkbox"/> | 6. Covered bridges were built to keep people safe while riding over water. |
| <input type="checkbox"/> | <input type="checkbox"/> | 7. Steamboats once reigned on both the Mississippi and Missouri rivers. |
| <input type="checkbox"/> | <input type="checkbox"/> | 8. Bicycles were once called velocipedes. |
| <input type="checkbox"/> | <input type="checkbox"/> | 9. In the 1800s, 28 locks and eight dams were constructed on the Des Moines River. |
| <input type="checkbox"/> | <input type="checkbox"/> | 10. In 1846, Iowa became the 29th state in the Union and the first free state west of the Mississippi river. |
| <input type="checkbox"/> | <input type="checkbox"/> | 11. The Dragoons blazed a trail through Iowa. |
| <input type="checkbox"/> | <input type="checkbox"/> | 12. The plowed path known as "The Great Road" went from Sioux City to Council Bluffs. |
| <input type="checkbox"/> | <input type="checkbox"/> | 13. During the Civil War, General Grenville Dodge built roads, bridges and railroad lines for the Union Army. |
| <input type="checkbox"/> | <input type="checkbox"/> | 14. Black paint was once used to mark roadway centerlines to prevent head-on collisions. |
| <input type="checkbox"/> | <input type="checkbox"/> | 15. The Kate Shelley Bridge was named for a teenager who saved her dog from falling off the railroad bridge. |





IOWA HISTORY

Discovering historic Iowa transportation milestones

Multiple Choice Worksheet

Directions: Circle the correct answer to the questions below.

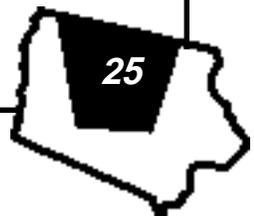
1. One of the most notable of the Pony Express riders was William F. "Buffalo Bill" Cody. Where was he born?
 - A. Le Claire, Iowa
 - B. Cody, Wyoming
 - C. Denver, Colorado
 - D. Buffalo, Iowa

2. Iowa's first territorial legislature met in which Iowa city?
 - A. Burlington
 - B. Iowa City
 - C. Des Moines
 - D. Davenport

3. Beginning in the 1860s, what type of vehicle gave rise to a "huge social phenomenon" in the United States, France and England?
 - A. Velocipede
 - B. Buggy
 - C. Train
 - D. Canoe

4. A route through Iowa made up a significant part of the trail established by approximately 70,000 persons seeking refuge from religious persecution between 1846 and 1869. These travelers were of the _____ religion.
 - A. Catholic
 - B. Amish
 - C. Mormon
 - D. Protestant

5. In 1673 Marquette and Joliet landed their canoes on solid ground that would later be known as Iowa. These explorers were from _____.
 - A. Germany
 - B. Norway
 - C. England
 - D. France



6. What power source was used for streetcars operating on Locust Street and Grand Avenue in Des Moines in 1886?
 - A. Horses
 - B. Steam locomotives
 - C. Electricity
 - D. Gasoline engines

7. Amelia Earhart saw her first airplane where?
 - A. Iowa State Fair
 - B. Chicago World's Fair
 - C. Burlington Airport
 - D. Moline, Illinois, Airport

8. The first section of interstate highway in Iowa opened in 1958. Where was it located?
 - A. Southwest edge of Des Moines
 - B. Davenport
 - C. Cedar Rapids
 - D. Mason City

9. Iowa's first official road map was prepared by what department of the Iowa State Highway Commission?
 - A. Women's Drafting Department
 - B. Engineering Department
 - C. Secretary's Department
 - D. None of the above

10. What was the total cost of the Interstate Highway System in Iowa?
 - A. Slightly less than \$500 million
 - B. More than \$750 million
 - C. More than \$1 billion
 - D. Just over \$2 billion

11. Which of the following were automobile builders from Iowa?
 - A. Lew Arntz and William Morrison
 - B. Fred and August Duesenberg
 - C. William Colby
 - D. All of the above

12. Iowa became part of the United States under the Louisiana Purchase in 1803. What price did the U.S. pay per acre?
 - A. \$30
 - B. \$2
 - C. 66 cents
 - D. 3 cents



13. Midwest Airways Corporation operated the first scheduled airline in Iowa. In 1928, it began providing service between Des Moines and which other Iowa city?
- A. Waterloo
 - B. Iowa City
 - C. Davenport
 - D. Council Bluffs
14. Professor Silas Brooks piloted the first manned balloon flight in Iowa. Where did that take place?
- A. Indianola
 - B. Burlington
 - C. Keosauqua
 - D. Monticello
15. Steamboats were used for transporting passengers and cargo. The “golden age” of the Mississippi River steamboats ended when _____ began to dominate transportation.
- A. Railroads
 - B. Wagon trains
 - C. Stagecoaches
 - D. Buses
16. The first major improvement to navigation on the Mississippi River along the Iowa border commenced in 1867. What was that project?
- A. Dredging of the channel
 - B. Construction of the Des Moines Rapids Canal, which included four locks, to bypass rapids
 - C. Construction of a river terminal at Keokuk
 - D. Construction of a dam at Dubuque
17. The construction of toll roads in Iowa was first tried in the 1850s. What material was used to surface the road that was built?
- A. Gravel
 - B. Concrete
 - C. Mussel shells
 - D. Wooden planks
18. Billboards and advertising signs were banned from highway rights-of-way in 1924. Why were they banned?
- A. Black and white were the only colors that could be used
 - B. Too many misspellings
 - C. Distracted motorists’ attention from warning signs
 - D. None of the above

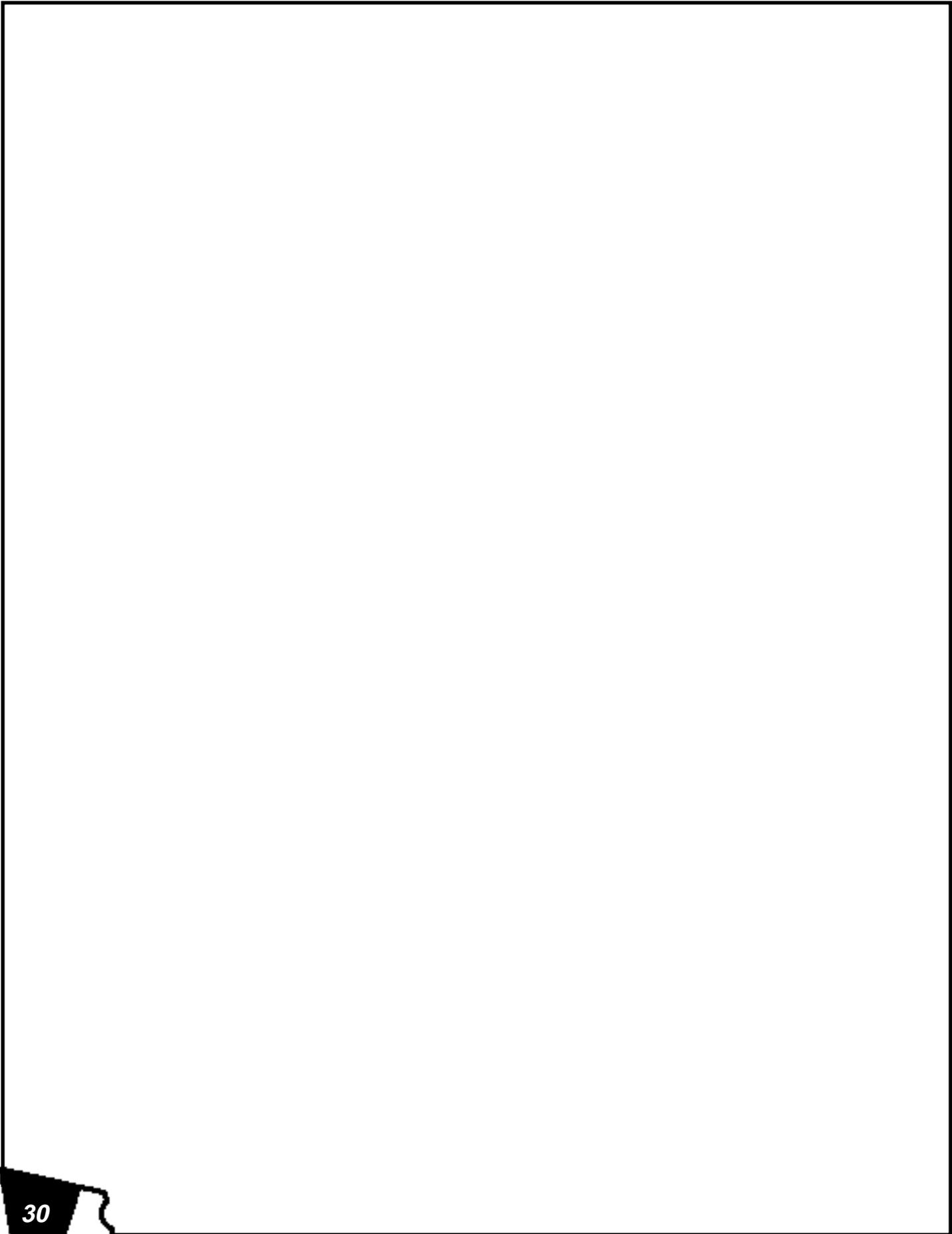


19. A significant "first" from Iowa was the development of a sign to improve safety on the highways. What was that sign?
- A. Yield
 - B. No Passing
 - C. Slippery When Wet
 - D. Hidden Driveway
20. Lewis and Clark led an expedition to find an overland route to the Pacific Ocean. During that expedition they met with the chiefs of the Oto and Missouri Native American tribes. A monument to commemorate that event was erected near which Iowa city?
- A. Council Bluffs
 - B. Keokuk
 - C. Wapello
 - D. Osceola
21. How many years did it take to complete the Interstate Highway System in Iowa?
- A. 12
 - B. 7
 - C. 23
 - D. 27
22. In 1926, Iowa began painting a center line on every mile of primary road pavement to remind motorists to stay to the right. What color was that line?
- A. White
 - B. Yellow
 - C. Black
 - D. Orange
23. The first railroad bridge over the Mississippi River was struck by the steamboat Effie Afton, prompting a lawsuit calling the bridge a hazard to river navigation. Who was the lawyer defending the railroad in this suit?
- A. Clarence Darrow
 - B. Abraham Lincoln
 - C. William Douglas
 - D. F. Lee Bailey
24. In what year did Iowa pass a law requiring seat belts to be used by all drivers and front seat passengers?
- A. 1982
 - B. 1984
 - C. 1986
 - D. 1988

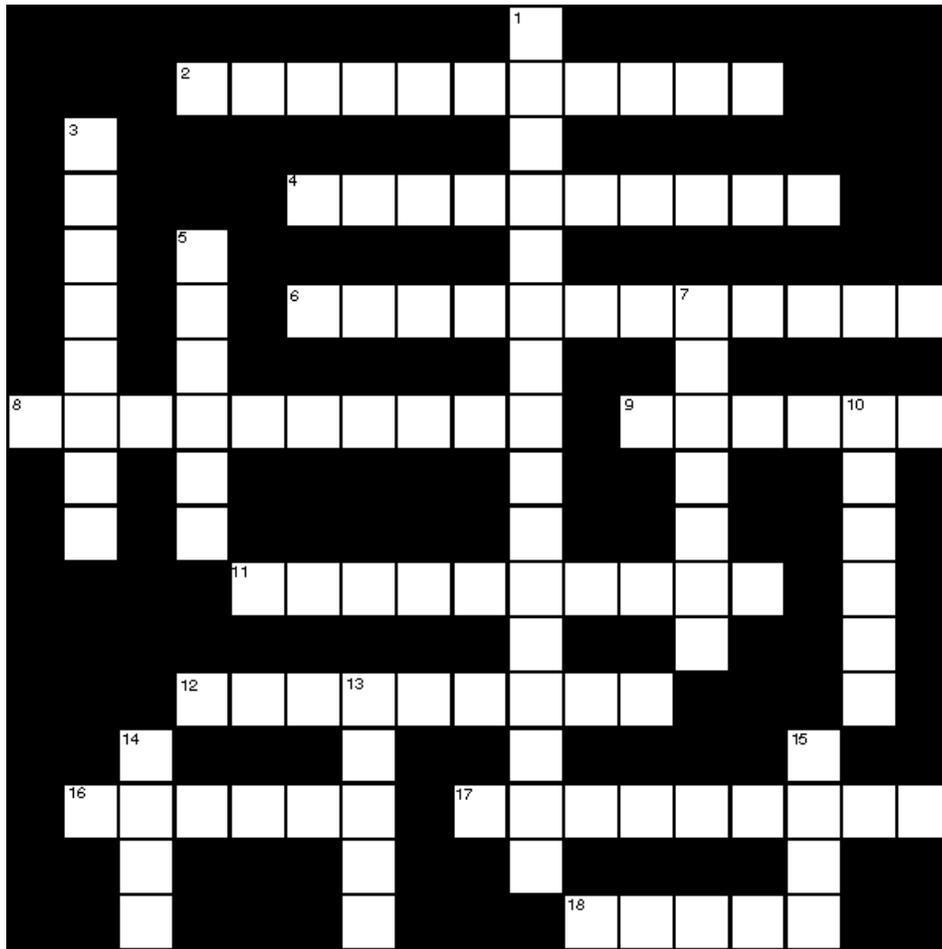


25. How many passengers did the first commercial airline passenger flight carry from Maywood, Illinois, to Iowa City, Iowa?
- A. 1
 - B. 25
 - C. 50
 - D. 100
26. The first paved street in Iowa, and only the second one in the United States, was located where?
- A. Des Moines
 - B. Le Mars
 - C. Burlington
 - D. Dubuque
27. Which of the following cities were two of the stops on Iowa's first stagecoach route?
- A. Dubuque and Davenport
 - B. Burlington and Fort Madison
 - C. Iowa City and Des Moines
 - D. Iowa City and Waterloo
28. The first train robbery in Iowa took place on July 21, 1873. Which famous outlaw led his gang to commit this robbery?
- A. James Taylor
 - B. John Davis
 - C. Joe Johnson
 - D. Jesse James
29. Which United States general was the chief engineer for the Union Pacific Railroad while the first transcontinental railroad was being built?
- A. Washington
 - B. Dodge
 - C. Custer
 - D. None of the above
30. What is the longest, highest, double-tracked railroad bridge in the world?
- A. Kate Shelley Bridge
 - B. Golden Gate Bridge
 - C. Grand Canyon Bridge
 - D. Great River Bridge at Burlington, Iowa
31. Iowa's oldest cities are found along which Iowa river?
- A. Des Moines River
 - B. Iowa River
 - C. Mississippi River
 - D. Missouri River





DISCOVERING HISTORIC IOWA TRANSPORTATION MILESONES



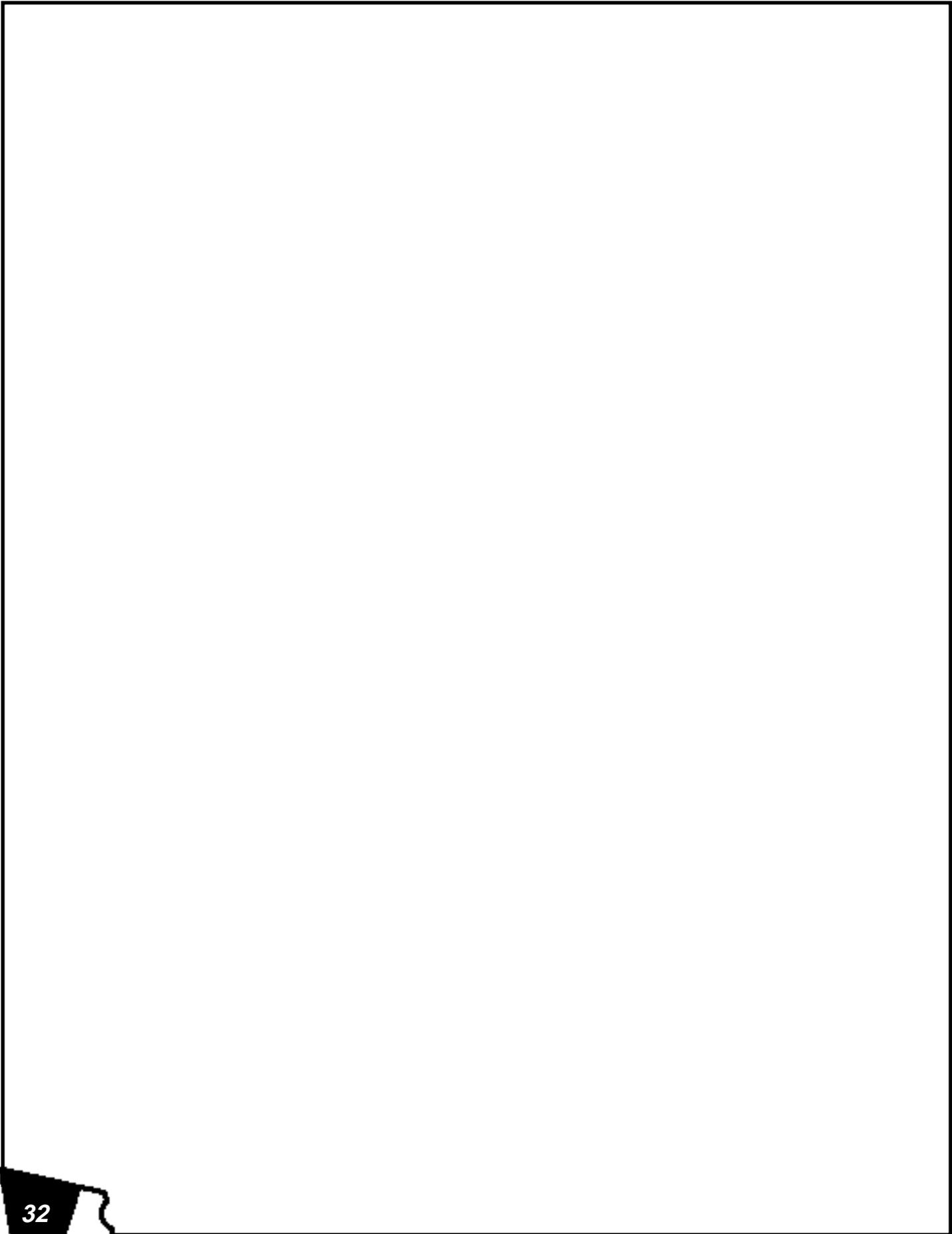
DOWN

1. U.S. 30 was the first paved _____ highway.
3. Lewis and Clark explored this river.
5. Name the city at mile marker 34 on Interstate 80.
7. This female aviator lived for a time in Des Moines and later mysteriously disappeared during an around-the-world flight.
10. The _____ index appears on one side of the transportation map.
13. Name the city at the junction of Iowa 9 and U.S. 65.
14. Name the city at the junction of U.S. 30 and U.S. 65.
15. Name the numeral that correctly completes both dates in the following sentence: Iowa's first segment of interstate was opened in 19__8, and the last segment was completed in 198__.

ACROSS

2. Denison native who captured the long-distance record of flying from New York to Berlin.
4. The Federal-Aid Highway Act of 1956 was signed by this President and created a national system of interstate and defense highways.
6. Before 1865, cycling was called _____.
8. Iowa's first state capitol was located in this city.
9. In 1673, Iowa was claimed by Father Marquette and Louis Jolliet for the country of _____.
11. The _____ brothers designed and built their first car, the Marvel, in Des Moines.
12. The first electric streetcars went into service in this city on December 20, 1888.
16. From 1846 to 1869 this trail went from Nauvoo, Illinois, through Iowa to Salt Lake City, Utah.
17. The first mile of portland cement concrete highway began west of this city.
18. This Civil War general and citizen of Council Bluffs supervised the completion of the first transcontinental railroad.





Worksheet #12
WORD FIND #1

W	R	I	V	E	E	G	R	A	B	Q	M	Z	C	C	S	V	B	S
T	S	K	T	O	L	I	P	G	S	Y	O	T	S	K	T	L	L	T
X	I	K	A	K	S	E	A	T	Q	A	T	E	U	Y	E	P	O	R
S	N	B	X	J	Y	Q	S	E	P	W	O	D	B	Q	A	S	N	E
Z	T	P	I	A	I	R	S	K	T	H	R	U	D	C	M	X	G	E
T	E	W	W	K	Q	A	E	C	J	G	C	T	E	T	T	C	I	T
M	R	C	A	R	E	D	N	I	O	I	A	I	K	L	O	I	T	C
D	S	A	Z	Q	N	A	G	T	P	H	R	T	L	N	I	N	U	A
Z	T	P	I	I	I	R	E	T	R	P	L	A	N	E	J	M	D	R
M	A	P	D	N	L	P	R	W	R	O	C	L	T	W	R	F	E	V
X	T	F	D	P	R	Q	S	Z	N	O	P	O	A	R	H	L	U	N
X	E	L	M	N	I	O	W	A	P	I	L	R	A	N	I	N	L	T
Q	X	Y	V	H	A	N	G	A	R	S	O	L	I	C	X	P	E	Z
R	I	V	E	R	B	O	A	T	T	G	A	S	E	A	H	S	U	T
T	E	N	A	L	P	R	I	A	V	X	E	D	C	Y	T	C	F	Q

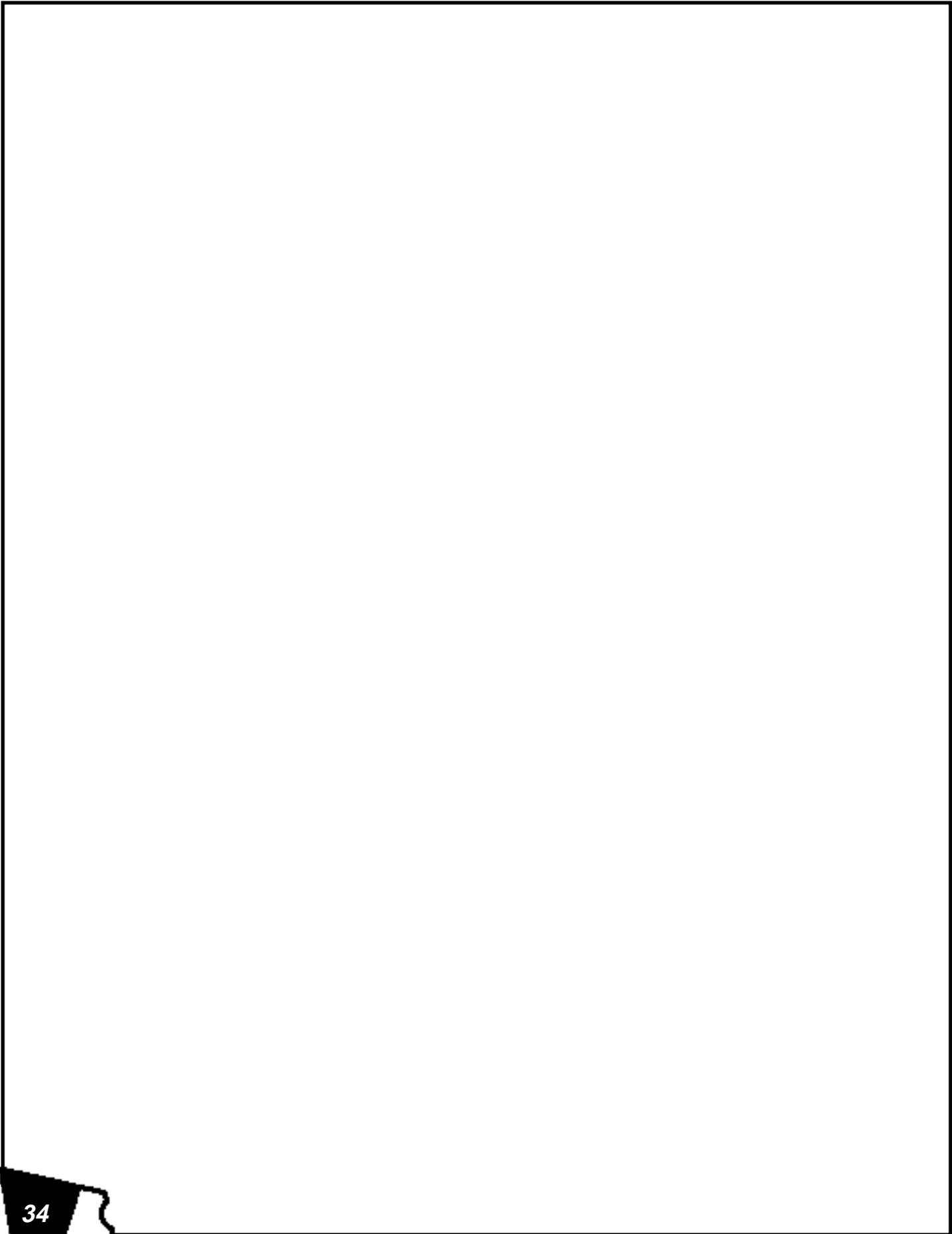
Directions: Hidden words listed below run forward, backward, up, down, and diagonally. Words may share common letters. Find each word. Box it in.

AIR
 AIRPORT
 BUS
 FLY
 GAS
 IOWA
 MAP
 PASSENGERS
 RADAR
 STEAM
 TICKET
 TROLLEY

AIRLINE
 BARGE
 CAR
 FUEL
 HIGHWAY
 LATITUDE
 MILE
 PILOT
 RIVER BOAT
 STREET CAR
 TRAIN

AIRPLANE
 BIKE
 COACH
 HANGERS
 INTERSTATE
 LONGITUDE
 MOTOR CAR
 PLANE
 SEAT
 TAXI
 TRIP





Worksheet #13
WORD FIND #2

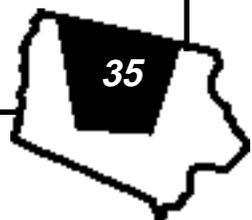
R	N	H	A	T	Q	S	R	E	T	N	E	C	A	M	P	I	N	G
E	T	W	O	L	A	N	E	E	A	C	N	R	A	M	P	M	N	S
V	Z	R	E	S	T	A	R	E	A	S	Q	G	G	P	F	H	Z	Y
I	M	W	X	B	P	O	P	U	L	A	T	I	O	N	I	A	G	M
R	R	F	C	I	T	I	E	S	I	G	N	S	V	R	M	T	L	B
A	P	R	O	V	N	Z	T	N	H	P	L	A	K	E	S	C	A	O
I	Z	W	O	R	Z	F	M	A	P	N	E	K	Q	V	W	H	W	L
L	I	A	R	K	E	C	O	L	L	E	G	E	S	Q	M	E	I	S
R	M	B	D	V	D	T	Q	R	H	S	E	K	E	Y	A	R	L	E
O	T	W	I	V	Q	P	S	P	M	X	N	X	I	D	R	I	D	G
A	Z	X	N	N	A	I	D	E	M	A	D	P	T	A	K	E	L	A
D	W	Y	A	W	H	G	I	H	X	V	T	Z	N	M	E	S	I	L
S	S	H	T	R	A	N	S	I	T	N	X	I	U	S	R	N	F	L
P	T	W	E	L	C	O	M	E	W	S	T	A	O	B	S	Q	E	I
T	M	W	S	K	R	A	P	E	T	A	T	S	C	N	W	K	I	V

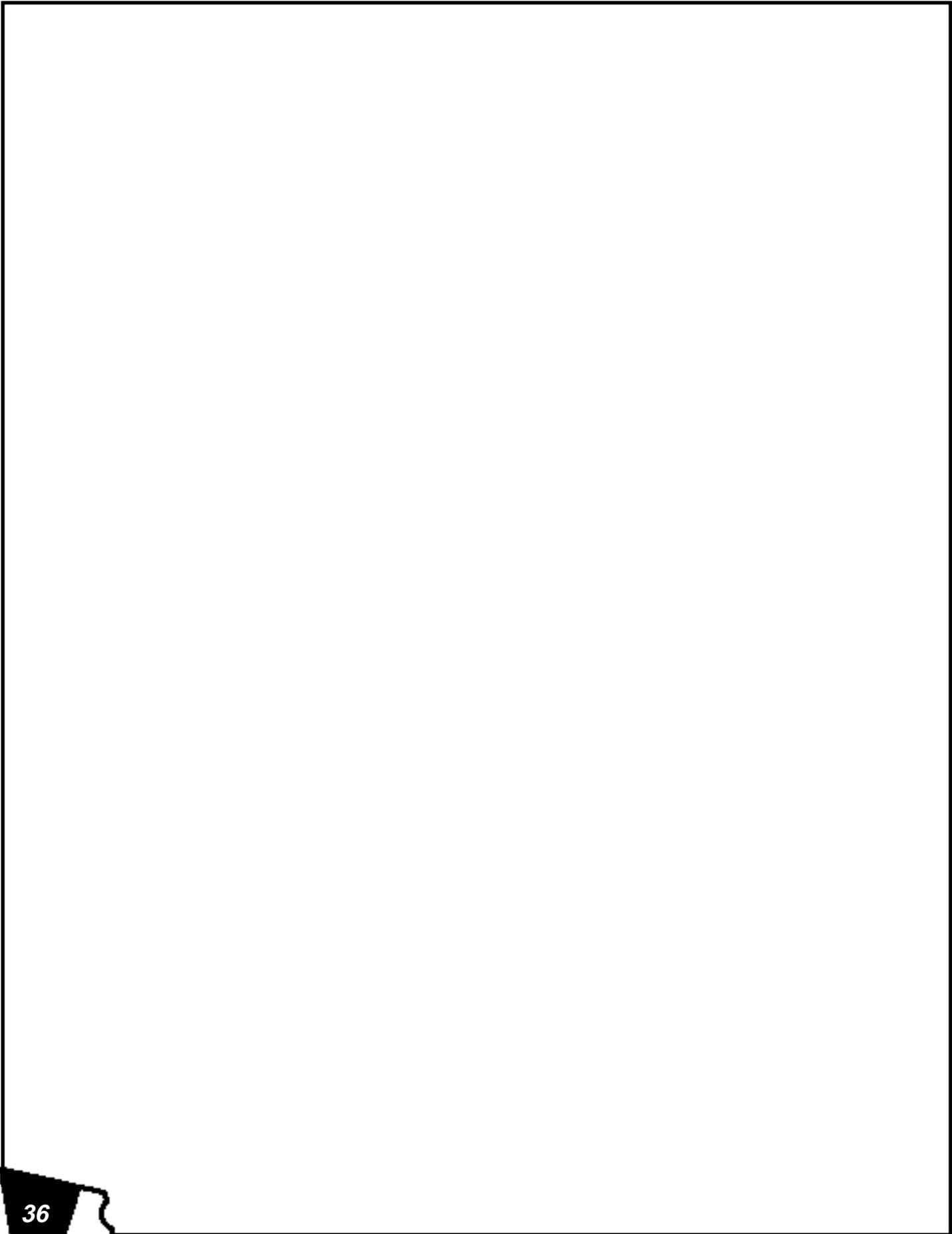
Directions: Hidden words listed below run forward, backward, up, down, and diagonally. Words may share common letters. Find each word. Box it in.

BOATS
 CENTERS
 COORDINATES
 HATCHERIES
 INFORMATION
 LIAR
 MARKERS
 RAIL
 REST AREAS
 STATE PARKS
 TWO LANE
 WILDLIFE

CAMPING
 CITIES
 COUNTIES
 HIGHWAY
 KEY
 LEGEND
 MEDIAN
 RAILROADS
 RIVER
 SYMBOLS
 VILLAGES

CAPITAL
 COLLEGES
 DAMS
 HOSPITALS
 LAKES
 MAP
 POPULATION
 RAMP
 SIGNS
 TRANSIT
 WELCOME





ANSWER KEYS

Worksheet #1

MAP READING BASICS USING THE IOWA TRANSPORTATION MAP

1. inch
2. points and route markers
3. IN ANY ORDER
 - A. General aviation
 - B. Railroad
 - C. Scheduled commercial service
 - D. Amtrak
 - E. Locks and dams
4. mileage
5. A. Fish
 - B. Building
 - C. Diagonal square
 - D. Blue square with an "H"
6. B. 25,000 - 50,000
 - C. 10,000 - 25,000
 - D. 5,000 - 10,000
 - E. 0 - 5,000
7. point of interest
8. 484
9. IN ANY ORDER
 - A. Hospital
 - B. Welcome center
 - C. Airport
 - D. Amtrak station
10. 99

Worksheet #2

IOWA TRANSPORTATION MAP READING

1. VARIOUS
2. VARIOUS
3. VARIOUS
4. A. Lake Aquabi
 - B. Mill Creek
 - C. Maquoketa Caves
 - D. Volga River
5. A. 155
 - B. 8,232
 - C. 193,189
 - D. 863
 - E. 11,618
 - F. 108,772
6. A. First Train Robbery in the West
 - B. Historical Museum
 - C. Grotto of the Redemption
 - D. Conservation Center
 - E. Indian Mounds
 - F. Henry Wallace Monument
 - G. Grave of Chief Wapello
 - H. 4-H Historical Museum
7. Cresco
8. Twin Lakes
9. IN ANY ORDER
 - A. Saylorville
 - B. Red Rock
10. Nishnabotna
11. Denison
12. E 2

Worksheet #3

A TOWNSHIP MAP OF THE STATE OF IOWA, 1851 COMPARE IT TO THE IOWA TRANSPORTATION MAP

1. X in both columns
2. X in the Township Map column
3. X in the Township Map column
4. X in both columns
5. X in the Township Map column
6. X in both columns
7. X in both columns
8. X in the Township Map column
9. X in both columns
10. X in both columns
11. X in both columns
12. X in both columns
13. X in the Current Map column
14. X in both columns
15. X in both columns
16. X in the Township Map column
17. X in the Current Map column
18. X in the Current Map column
19. X in the Township Map column

Worksheet #4

COMPARING MAPS

Counties

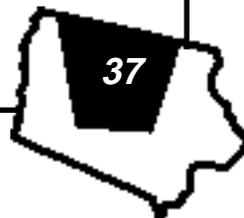
1. Bancroft to Kossuth
2. Buncombe, Bancroft, Waukaw, Yell, Risley and Fox
3. Chickasaw, Winneshiek and Allamakee
4. IN ANY ORDER
 - A. Lee
 - B. Des Moines
 - C. Van Buren
 - D. Dubuque
 - E. Jefferson

Rivers and Lakes

1. ANY TWO
Cedar (Clear), Boyer (Black Hawk), Walled (Twin) and Boone (Chrystal)
2. Bancroft OR Osceola
3. IN ANY ORDER
Saylorville, Rathbun, Red Rock and Coralville
4. 28

Cities and Towns

1. ANY TWO
 - A. Campbell's Grove
 - B. Cartersville
 - C. Coonville
 - D. Wells Mill
 - E. Boston
2. IN ANY ORDER
 - A. Burlington
 - B. Dubuque
 - C. Muscatine
 - D. Keokuk
 - E. Fort Madison
3. IN ANY ORDER
 - A. Des Moines
 - B. Cedar Rapids
 - C. Davenport
 - D. Sioux City
 - E. Waterloo
4. VARIOUS
5. VARIOUS



Worksheet #5

FINDING HISTORICAL DATA USING THE
A TOWNSHIP MAP OF THE STATE OF IOWA, 1851

1. Yes (477 miles)
2. Yes (310 miles)
3. No
4. Yes (1851)
5. No
6. Yes (\$1.25 per acre)
7. Yes (Cook and Sargent)
8. Yes (12 days)
9. Yes (lead, zinc and iron ore)
10. No
11. Yes (various)
12. Yes (75 cents)
13. No
14. Yes (192,266)
15. No

Worksheet #6

IOWA'S EARLY TRANSPORTATION SYSTEM

1. Southeast
2. IN ANY ORDER
A. Muscatine
B. Tipton
3. IN ANY ORDER
Red Cedar, Franklin, Buena Vista
4. General Assembly of the State of Iowa
5. 55 miles
6. Iowa City

Worksheet #7

FINDING PUBLIC LAND USING
A TOWNSHIP MAP OF THE STATE OF IOWA, 1851

1. Jasper
2. Louisa
3. Marshall
4. Crawford
5. Tama

Worksheet #8

A TOWNSHIP MAP OF THE STATE OF IOWA, 1851

1. IN ANY ORDER
A. Stage Coach
B. Ferry
C. Steamboat
D. Railroad
2. VARIOUS
3. VARIOUS
4. IN ANY ORDER
A. LEAD
B. ZINC
C. IRONORE
5. 212
6. 265
7. Burlington
8. 71 hours 3 days
9. Lansing
10. Keokuk

Worksheet #9

IOWA HISTORY

Discovering historic Iowa transportation milestones
true or false worksheet

1. True. See page 5.
2. False. See page 7.
3. True. See page 16.
4. True. See page 30.
5. False. See page 21.
6. False. See page 8.
7. True. See page 3.
8. True. See page 10.
9. False. See page 4.
10. True. See page 6.
11. True. See page 2.
12. False. See page 9.
13. True. See page 9.
14. True. See page 25.
15. False. See page 15.

Worksheet #10

IOWA HISTORY

Discovering historic Iowa transportation milestones

Multiple Choice Worksheet

1. A See page 7.
2. A See page 4.
3. A See page 10.
4. C See page 6.
5. D See page 1.
6. C See page 12.
7. A See page 22.
8. A See page 31.
9. A See page 21.
10. C See page 35.
11. D See page 12 and 13.
12. D See page 1.
13. A See page 27.
14. B See page 6.
15. A See page 3.
16. B See page 10.
17. D See page 7.
18. C See page 25.
19. B See page 32.
20. A See page 1.
21. D See page 35.
22. C See page 25.
23. B See page 8.
24. C See page 35.
25. A See page 27.
26. B See page 15.
27. B See page 5.
28. D See page 11.
29. B See page 9.
30. A See page 15.
31. C See page 1.
32. A See page 13.



To learn more about transportation in Iowa, contact us at:



Director's Staff Division
800 Lincoln Way
Ames, IA 50010
515-239-1663
Fax: 515-817-6508
or
visit our web site at:
www.dot.state.ia.us